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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,735	07/03/2001	Michael J. Gazewood	115.015	5587

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EXAMINER

HEWITT, JAMES M

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/898,735	GAZEWOOD, MICHAEL J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James M Hewitt	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 34-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 29-33 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 02 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All   b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Objections*

Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 21 requires the first plurality of circumferential ribs to at least partially embed in the tubular member to form a metal-to-metal seal. Claim 22 requires the first plurality of circumferential ribs to at least partially embed in the tubular member when forming the metal-to-metal seal.

Claim 21 (and its dependents: claims 22-28) are objected to because of the following informalities:

In claim 21 line 10, the phrase "for driving said first cylindrical member into said top swage" should be "for driving said top swage into said first cylindrical member".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-28 and 34-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owen et al (US 3,948,321) in view of Hart (US 2,345,873).

With respect to claim 21, Owen et al discloses an anchoring apparatus for use in a tubular member (21) disposed in a wellbore (23), the apparatus comprising: a top swage member (27); a first cylindrical anchoring member (31) disposed about the top swage member, said anchoring member containing a first plurality of expandable circumferential ribs (see Figures 4A and 6), the ribs are configured to form a substantially metal-to-metal seal with the tubular member and being free of an elastomeric seal (see Figure 6 and col. 4 lines 17-21, and also refer to the *Response to Arguments* in the final office action); a setting tool (11) for driving said top swage member into said anchoring member so that said ribs are expanded outward, an extension member (39) having a first end attached to said first cylindrical anchoring member (see col. 5 lines 21-28). Owen et al fails to teach that the first anchoring member is made of a metal harder than the tubular member, and that the first plurality of ribs partially embed in the tubular member. Hart discloses a bridging plug device comprising anchoring members or slips (13) having teeth (14) that engage the surrounding

casing. On page 2 column 1 lines 33-39, Hart states that the surface of the slips may be hardened so that the teeth (14) may dig (or embed) into the surrounding casing. Owen's ribs or teeth are said to engage the surrounding casing in tight frictional and sealing engagement. In order to better retain and anchor Owen's device, it would have been obvious to one having ordinary skill in the art at the time the invention was made to harden the surface of Owen's anchoring member (31) as taught by Hart to permit Owen's ribs to embed in the surrounding casing.

With respect to claim 22, wherein the first ribs at least partially grip and embed in the tubular member when forming the metal-to-metal seal. Refer to the *Claim Objections* above.

With respect to claim 23, wherein said first anchoring member further comprises an elastomeric seal (49) set apart from said first ribs. Refer to Figure 4A and 6, wherein the seal (49) is within a recess or cavity below the first ribs.

With respect to claim 24, further comprising a second cylindrical anchoring member/sleeve (33) having the same construction as the first (31); a bottom swage member (29); wherein said setting tool (11) is further adapted for driving said bottom swage into said second anchoring member and radially deforming said second anchoring member so that said second ribs are expanded outward.

With respect to claim 25, Owen et al fails to teach the hardness of the anchoring members, yet states that the members are sufficiently malleable and are adapted to be expanded. Further in another patent to Owen et al, US 3,746,091, the material is said to be a low carbon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design

the anchoring members with a given hardness (that being of 105 or less on the Rockwell B scale) since low carbon, malleable steel is consistent with such a hardness and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal or workable material properties involves only routine skill in the art.

With respect to claim 26, wherein said second cylindrical anchoring member further comprises an elastomeric seal set apart from said second plurality of ribs. Refer to the above rejection of claim 23 and column 6 lines 4-8.

With respect to claim 27, wherein said extension member includes a bridge plug device.

With respect to claim 28, wherein said bottom swage has a first cylindrical surface that extends to a second conical surface, wherein said first surface is concentrically disposed within said second anchoring member. Refer to Figure 4B.

With respect to claim 34, refer to the above rejection of claim 21, wherein the first cylindrical sleeve has been interpreted the same as the first cylindrical anchoring member.

With respect to claim 35, refer to the above rejection of claim 24, wherein the second cylindrical sleeve has been interpreted the same as the second cylindrical anchoring member.

With respect to claim 36, further comprising a series of annular grooves associated with the first and second plurality of circumferential ribs.

With respect to claim 37, wherein the second cylindrical sleeve has disposed thereon a second elastomeric seal set apart from said second plurality of circumferential grooves. Refer to the above rejection of claim 23 and column 6 lines 4-8.

With respect to claim 38, refer to the above rejection of claim 21.

With respect to claim 39, the Examiner takes Official Notice of the use of Teflon to coat an anchoring member in a well bore in order to increase the strength of the member.

With respect to claims 40-42, refer to the above rejection of claim 21.

With respect to claim 43, refer to the above rejection of claim 23.

With respect to claim 44, refer to the above rejection of claim 21.

With respect to claim 45, Owen discloses a first set of elastomer-free ribs. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a second set since it has been held that a mere duplication of the essential working parts only involves routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With respect to claim 46, refer to the above rejection of claim 21.

With respect to claim 47, the first group of rib elements is on the first anchoring member, the second group is on the second anchoring member. Elastomer (49) is disposed therebetween.

With respect to claim 48, refer to the above rejection of claim 21. The downhole hole tool has been interpreted as straddle patch (17)

With respect to claim 49, refer to the above rejection of claim 21.

With respect to claim 50, wherein said downhole tool is selected from a group consisting of a tubing patch, a casing patch, a gravel pack assembly and a bridge plug.

With respect to claim 51, wherein the setting tool is one of hydraulically actuated and explosively actuated. Refer to column 3 lines 19-31.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.



Art Unit: 3679

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

*jmh*  
jmh  
June 13, 2003

*James M. Hewitt*  
James M. Hewitt  
Patent Examiner  
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